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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,493	10/31/2000	Peter W. Estelle	NOR-937	9829

7590

03/04/2003

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EXAMINER

KEASEL, ERIC S

ART UNIT

PAPER NUMBER

3754

DATE MAILED: 03/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/702,493

Applicant(s)

ESTELLE

Examiner

Eric Keasel

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 16, 19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 16, 19 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 Nov 2002 has been entered.
2. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 16, 19, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nojima (US Patent Number 5,812,355) in view of Oyama et al. (US Patent Number 4,878,147).

Nojima discloses the fluid dispenser for dispensing a fluid onto a substrate with a solenoid-actuated dispensing valve, power supply, and a driver circuit with initial peak and holding currents (along with the associated methods), but fails to disclose the details of the driver circuit initial peak current having a duration determined as an inverse function of the output voltage of the power supply. Oyama et al. disclose a similar driver circuit with initial peak and holding currents with the duty ratio (duration) reduced inversely proportional to the power supply voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the driver circuit of Oyama et al. with the fluid dispenser of Nojima in order to overcome the problems of different values of the power supply from a production efficiency standpoint as taught by Oyama et al. (see column 1, line 12 to column 2, line 18).

Art Unit: 3754

5. Claims 1-4, 16, 19, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nojima in view of Ohtsuka (US Patent Number 5,737,172).

Nojima discloses the fluid dispenser for dispensing a fluid onto a substrate with a solenoid-actuated dispensing valve, power supply, and a driver circuit with initial peak and holding currents (along with the associated methods), but fails to disclose the details of the driver circuit initial peak current having a duration determined as an inverse function of the output voltage of the power supply. Ohtsuka discloses a similar driver circuit with initial peak and holding currents with the pulse width for a voltage value decreasing in inverse proportion to the power supply voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the driver circuit of Ohtsuka with the fluid dispenser of Nojima so that the absorbing force and an input to the coil can be maintained at a constant level, irrespective of the voltage value as taught by Ohtsuka (see column 4, lines 54-59).

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 3754

7. Claims 1-4, 16, 19, and 21-23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 09/880,649 (commonly assigned to Nordson Corporation) in view of Oyama et al.

Claim 4 of copending Application No. 09/880,649 discloses the fluid dispenser for dispensing a fluid onto a substrate with a solenoid-actuated dispensing valve, power supply, and driver circuit (along with the inherent associated method), but fails to disclose the details of the driver circuit initial peak current having a duration determined as an inverse function of the output voltage of the power supply. Oyama et al. disclose a similar driver circuit with initial peak and holding currents with the duty ratio (duration) reduced inversely proportional to the power supply voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the driver circuit of Oyama et al. with the fluid dispenser of Nojima in order to overcome the problems of different values of the power supply from a production efficiency standpoint as taught by Oyama et al. (see column 1, line 12 to column 2, line 18).

This is a provisional obviousness-type double patenting rejection.

8. Claims 1-4, 16, 19, and 21-23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 09/880,649 (commonly assigned to Nordson Corporation) in view of Ohtsuka.

Claim 4 of copending Application No. 09/880,649 discloses the fluid dispenser for dispensing a fluid onto a substrate with a solenoid-actuated dispensing valve, power supply, and driver circuit (along with the inherent associated method), but fails to disclose the details of the

Art Unit: 3754

driver circuit initial peak current having a duration determined as an inverse function of the output voltage of the power supply. Ohtsuka discloses a similar driver circuit with initial peak and holding currents with the pulse width for a voltage value decreasing in inverse proportion to the power supply voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the driver circuit of Ohtsuka with the fluid dispenser of Nojima so that the absorbing force and an input to the coil can be maintained at a constant level, irrespective of the voltage value as taught by Ohtsuka (see column 4, lines 54-59).

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

9. Applicant's arguments with respect to claims 1-4, 16, 19, and 21-23 have been considered but are not found persuasive.

Applicant states that the closing pulse signal of Oyama is not directly sent to the coil, but rather is sent through an on-off circuit. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the feature upon which applicant relies (i.e., the closing pulse signal being directly sent to the coil) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It should also be noted that applicant's signal from the PWM is not sent directly to the coil either (see applicant's Fig. 3).

Re the argument with respect to Nojima in view of Ohtsuka, one cannot show nonobviousness by attacking references individually where the rejections are based on

Art Unit: 3754

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

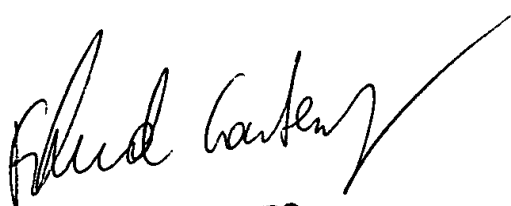
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene, or acting supervisor Ehud Gartenberg, can be reached on (703) 308-2696. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

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March 3, 2003



**EHUD GARTENBERG
PRIMARY EXAMINER**